

## CLAIMS

1. An ionization system for a predefined area comprising:
  - (a) a plurality of emitter modules spaced around the area, each emitter module having an individual address and including at least one electrical ionizer;
  - (b) a system controller for individually addressing and monitoring the emitter modules; and
  - (c) communication lines for electrically connecting the plurality of emitter modules with the system controller.
2. A system according to claim 1 wherein each of the emitter modules further includes means for transmitting alarm condition information related to at least one operating parameter of the electrical ionizer via the communication lines, the alarm condition information including the emitter module address, the system controller receiving the alarm condition information.
3. A system according to claim 2 wherein the operating parameter is the status of a positive or negative emitter.
4. A system according to claim 2 wherein the operating parameter is an ion imbalance condition.
5. A system according to claim 1 wherein the communication lines are connected in a daisy-chain manner to each of the emitter modules, the communication lines providing both (i) communication, and (ii) power to the emitter modules.

6. A system according to claim 1 wherein each emitter module further includes a stored balance reference value, and the system controller includes means for individually monitoring the stored balance reference value of each emitter module.

7. A system according to claim 1 wherein each emitter module further includes a stored ion output current reference value, and the system controller includes means for individually monitoring the stored ion output current reference value of each emitter module.

8. A system according to claim 1 further comprising:

(d) a remote control transmitter having an emitter address setting and a balance adjustment function, each emitter module further including a stored balance reference value and a remote control receiver electrically connected to the balance reference value and responsive to the remote control transmitter, wherein the remote control transmitter allows the balance reference value of each emitter module to be individually adjusted.

9. A system according to claim 1 further comprising:

(d) a remote control transmitter having an emitter address setting and an ion output current adjustment function, each emitter module further including a stored ion output current reference value and a remote control receiver electrically connected to the ion output current reference value and responsive to the remote control transmitter, wherein the remote control transmitter allows the ion output current reference value of each emitter module to be individually adjusted.